AMENDMENTS TO THE CLAIMS

Claims 1-18 (Cancelled).

19. (Currently Amended) A method for operating a first pixel cell of an imager, the method comprising:

accumulating charge at a photoconversion device ~~during an integration period~~;

resetting a charge collection region with a reset transistor during a reset period~~, wherein said integration period and said reset period occur while a row-select transistor in the first pixel cell is activated~~;

storing accumulated charge from said photoconversion device at said charge collection region via a transfer transistor;

reading out said charge from said charge collection region; ~~and~~

removing ~~residual~~ charge ~~remaining~~ in said photoconversion device ~~after said charge storage at said charge collection region, wherein said act of removing comprises activating said reset transistor and said transfer transistor prior to a subsequent integration period~~ before said charge accumulation by applying a first voltage to a gate of another transistor coupled to said photoconversion device; and

removing charge in said photoconversion device during said charge accumulation by applying a second voltage to said gate of said another transistor, said second voltage being different than said first voltage.

20-21. (Canceled).

22. (Currently Amended) The method of claim 19, wherein said ~~act of transferring comprises~~ acts of first and second removing charge each comprise transferring charge from said photoconversion device to a supply voltage ~~Vdd~~.

23. (Original) The method of claim 19, wherein the imager is a CMOS imager.

24. (Currently Amended) The method of claim 23, wherein the CMOS imager comprises ~~one of a four transistor,~~ a five transistor~~, six transistor or seven transistor~~ pixel architecture.

25. (Original) The method of claim 19, wherein said photoconversion device is a photodiode.

26. (Original) The method of claim 19, wherein said photoconversion device is a photogate.

27. (Original) The method of claim 19, wherein said photoconversion device is a photoconductor.

Claims 28-66 (Cancelled).

67. (Previously Presented) The method of claim 19, wherein reading out said charge from said charge collection region comprises operating a transistor for reading out said charge as a pixel signal to a read-out circuit.

68. (Previously presented) The method of claim 67, further comprising storing said pixel signal in a sample and hold circuit.

69-72. (Canceled)

73. (Withdrawn) A method of operating an imager, the method comprising:

resetting a plurality of pixels in a pixel array during a reset period, said pixel array comprising a plurality of pixels arranged in rows and columns, each pixel comprising a photoconversion device, a reset transistor, a charge storage region, a transfer transistor and a readout transistor;

applying incident light to said pixel array during a first integration period such that said photoconversion devices convert said applied light to charges;

transferring said charges from said photoconversion devices to a respective charge storage region;

reading out a signal from each pixel representing an amount of said transferred charges in said charge storage region; and

removing residual charge remaining in said photoconversion device by activating said reset transistor and said transfer transistor prior to a second integration period.

74. (Withdrawn) The method of claim 73, wherein reading out a signal from each pixel comprises reading out each row of pixels of said array sequentially onto respective column lines.

75. (Withdrawn) The method of claim 73, wherein removing residual charge remaining in said photoconversion device by activating said reset transistor and said transfer transistor prior to a second integration period is done simultaneously for every pixel in said array.

76. (Withdrawn) The method of claim 73, wherein removing residual charge remaining in said photoconversion device by activating said reset transistor and said transfer transistor prior to a second integration period is done row by row for every row in the array.

77. (Withdrawn) The method of claim 73, wherein during said reset period, a signal representing a reset condition is read out from every pixel in the array.

78. (Cancelled).

79. (Currently Amended) The method of claim 19, wherein the act of removing ~~residual~~ charge <u>before said charge accumulation</u> occurs while the row select transistor is not activated.

80. (Canceled).

81. (New) The method of claim 19, wherein said second voltage turns said another transistor less than fully on.

82. (New) The method of claim 19, wherein said act of removing charge before said charge accumulation removes residual charge to reduce image lag.

83. (New) The method of claim 19, wherein said act of removing charge during said charge accumulation increase a dynamic range of said photoconversion device.

84. (New) The method of claim 19, wherein said act of removing charge during said charge accumulation provides an anti-blooming function.